

Work Order ID 81662

\*81662\*

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March-16-12 1:54:31 PM

Item ID: DSI 9396-013 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Aft Crosstube Support Change  
 Start Date: 16/03/2012 Start Qty: 2.00 \*2\* Cust Item ID:  
 Required Date: 30/03/2012 Req'd Qty: 2.00 \*2\* Customer:  
 Reference:

Approvals: Process Plan: MLJ Date: 12/03/16 Tooling: Date: Run Start \*NR1\*  
 QC: Date: SPC (Y/N): Date: Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100	DOCUMENT CONTROL	0.00							
*100*									
DC	Memo	0.00							
Document Control	Photocopy bluefile and create labels as per PPP DSI 9396 CHG001		Schultz						
110	QC4- 100% Inspect kits for completeness	0.00							
*110*									
QC	Memo	0.00							
Quality Control			Schultz						
120	Packaging	0.00							
*120*									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP DSI 9396								
	Location: <u>20</u> PPP Rev: <u>Draft</u>								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

\*Work Order ID 81662

\*81662\*

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Item ID: DSI 9396-013

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Aft Crosstube Support Change

Start Date: 16/03/2012 Start Qty: 2.00

\*2\*

Cust Item ID:

Required Date: 30/03/2012 Req'd Qty: 2.00

\*2\*

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

QC21- Final Inspection - Work Order Release

0.00

\*130\*

QC

Memo

0.00

Quality Control

12/4/25 [Signature]

12-04-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 1

Work Order ID: 81662

\*81662\*

Parent Item: DSI 9396-013

\*DSI 9396-013\*

Parent Item Name: Aft Crosstube Support Change

Start Date: 16/03/2012

Required Date: 30/03/2012

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A 08-01-10 ECN 1075 DD  
IPP Rev:B 08-01-28 ECN 1108 DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3595-063-530		Manufactured	No			110	Each	119.0000	4	8			
*D3595-063-530*										**			
RUBBER CUSHION													

Location	Loc Qty	Loc Code
LG	78	
79932	78	
MAT052	41	
63407	6	
67185	6	
70067	18	
72745	2	
75783	9	

MS21920-28

Purchased

No

120

Each

111.0000

4

8

\*MS21920-28\*

Clamp(per MIL-DTL-8783C)

\*\*

Location	Loc Qty	Loc Code
FG	5	
105884	5	
LG050	106	
116839	2	
118713	4	
120054	2	
120884	48	
121067	50	

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D205-594 Rev. C (AND EARLIER) AND  
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D205-594 Rev. 2 (AND EARLIER)  
REF. CANADIAN STC: SH03-6  
REF. FAA STC: SR01742NY

For D205-596-101/-103 Crosstubes (ref. 39" Landing Gear) or D205-596-105/-107 Crosstubes (ref. 31" Landing Gear) at CHG 002 or later, the D2856-600-851/-1009 Abrasion Strips have been removed, the MS21920-25 Clamp replaces the MS21920-24 Clamps, the D2893-1 and D2940-1 Supports have been bonded onto the crosstubes using Magnobond 6398 and D3595-063-450/-530 Rubber Cushions have been installed underneath the MS21920-25/-28 Clamps. Amend Parts List of IIN-D205-594 Section 5 and ICA-D205-594 Section 32.8 as follows:

**Remove:**

QTY -101	QTY -103	QTY -105	QTY -107	Part Number	Description
2		2		D2856-600-851	ABRASION STRIP
	2		2	D2856-600-1009	ABRASION STRIP
4		4		MS21920-24	CLAMPS

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER

**Add:**







QTY -101	QTY -103	QTY -105	QTY -107	Part Number	Description
4		4		D3595-063-450	RUBBER CUSHION
	4		4	D3595-063-530	RUBBER CUSHION
4		4		MS21920-25	CLAMP

NO. 81662 MLJ  
12/03/16

To prevent the supports from shifting on D205-596-101/-103/-105/-107 Crosstubes at CHG 001, the D2893-1 or D2940-1 Supports should be removed and re-installed as follows:

- Follow section 32.1 of ICA-D205-594 for the removal of the crosstubes from the helicopter.
  - Remove the MS21920-24/-28 Clamps that fasten the D2893-1 and D2940-1 Supports from the crosstubes per Section 32.3 of ICA-D205-594.
  - Remove the D2856-600-851/-1009 Abrasion Strips from the crosstube per section 32.5 of ICA-D205-594.
  - Inspect the crosstube surface underneath the supports for corrosion and mechanical damage per items 5.3.1 and 5.3.2 of the 300 hour inspection. Repair damage within acceptable limits and touch up finish per item 5.3.3 of the 300 hour inspection.
  - Inspect the supports for corrosion and mechanical damage per items 5.3.4 of the 300 hour inspection. Repair damage within acceptable limits and touch up finish per item 5.3.4 of the 300 hour inspection.
  - Abrade area to which support will be applied with 400 grit sandpaper. Saturate a clean cloth with MEK or 4105S Wash'n'Wipe Degreaser or equivalent and wipe area until there is no residue.
  - Apply a 0.03" to 0.06" thick layer of Magnobond 6398 underneath D2893-1 or D2940-1 Supports and re-install the Supports on the crosstube as shown in Figure 1. Install a D3595-063-450/-530 Rubber Cushion on each MS21920-25/-28 Clamp. Position and secure the D2893-1 or D2940-1 Supports on the crosstube using MS21920-25/-28 Clamps. Torque clamps to 80-100 in-lb. Let the D205-596-101/-103/-105/-107 Crosstube Assembly cure before re-installing the crosstube on the aircraft.
- Note:** It is acceptable to substitute the MS21920-25/-28 with longer or shorter clamps to accommodate varying diameters. Ensure there is a minimum of 1.5 threads in safety on the nut.
- Re-install the D205-596-101/-103/-105/-107 crosstube per section 32.2 of ICA-D205-594.

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01	
<b>APPROVED</b>	
BY: 	
D. SHEPHERD (DE # 02)	
DATE: 07.12.04	
CERT. NO.: SH03-6	
ISSUE NO.: 3	

B	REPLACE MS21920-24 WITH MS21920-25 ON -101/-105; ADDED EXTRA NOTE TO INSTALLATION PROCEDURE (STEP 7)	MB	07.12.04
A	NEW ISSUE	MB	07.11.16
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO. REV. B	
MFG. APPR.		DSI 9396 SHEET 1 OF 2	
APPROVED		TITLE SCALE	
DE APPR.		CROSSTUBE SUPPORT CHANGE NTS	
DATE 07.12.04		COPYRIGHT © 2007 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

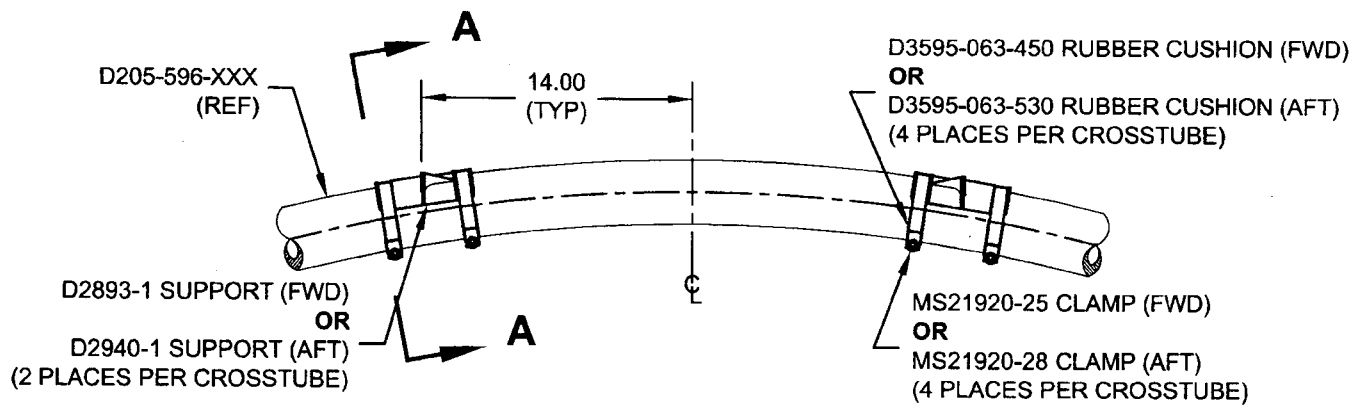
**NOTE:** Date & initial all entries



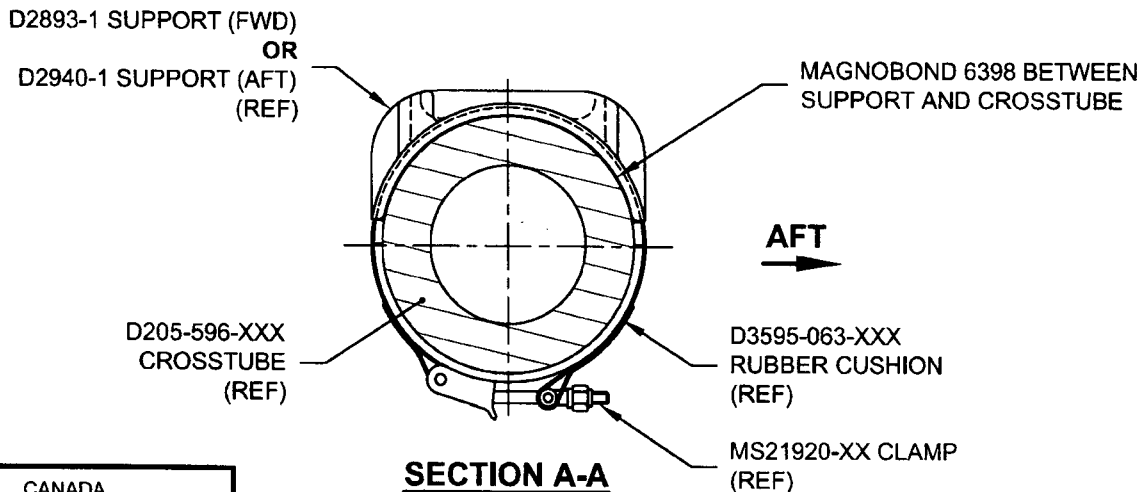
For customers who would like to upgrade their D205-596-101/-103/-105/-107 Crosstubes from CHG 001 to CHG 002, the following kits can be obtained from Dart:

#### DSI 9396-XXX PARTS LIST

QTY -011	-QTY -013	Part Number	Description
X		DSI 9396-011	FWD CROSSTUBE SUPPORT CHANGE (D205-596-101/-105 FWD CROSSTUBE)
	X	DSI 9396-013	AFT CROSSTUBE SUPPORT CHANGE (D205-596-103/-107 AFT CROSSTUBE)
4		D3595-063-450	RUBBER CUSHION
4		MS21920-25	CLAMP
	4	D3595-063-530	RUBBER CUSHION
	4	MS21920-28	CLAMP



**FIGURE 1: INSTALLATION OF SUPPORT ON CROSSTUBE**



CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

BY: *[Signature]*  
D. SHEPHERD (DE # 02)

DATE: 07.12.04  
CERT. NO.: SH03-6  
ISSUE NO.: 3

DESIGN	<i>[Signature]</i>	<b>DART AEROSPACE LTD</b>	
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	DSI 9396	SHEET 2 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	CROSSTUBE SUPPORT CHANGE	NTS
DATE	07.12.04	COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	